

# Research Progress on Psychological Changes of the Elderly under Major Epidemic Situations

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**Abstract:** People have been developing higher needs in and attentions on health, especially the elderly, whose mental health has drawn a lot attentions, since there was a lot of outbreaks of epidemics, such as, coronavirus disease, SARS, and Ebola, in recent years. As the prevention and control for pandemic goes normally, it has been an important hot issue that how to ease the elderly's negative emotions from the pandemic, such as fear, anxiety, tension and etc., and strengthen their mental ability to cope. The article is a summary of domestic and abroad progresses of studying on the elderly's psychological stresses under major pandemic in five years, and aims to be reference for mentally interfering with the elderly's mental health in the future when there is a pandemic.

**Keyword:** Pandemic; The elderly; Mental issues; Overview

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## 1. Introduction

According to the world population report, in 2017, the global population over 60 years old was about 962 million, accounting for 13% of the total global population. It is estimated that by 2050, China's elderly population will exceed 400 million, accounting for 34.1% of the total population <sup>[1]</sup>. The aging of the world population is becoming more and more serious. It is very urgent to alleviate the aging of the population. Moreover, with the development of society and the improvement of life quality, people's health concept and requirements for health are constantly changing. The mental health of the elderly has increasingly become the focus of attention and one of the key indicators to measure the health level of the elderly <sup>[2]</sup>. In the context of the outbreak of public health emergencies in recent years, there are deficiencies in public psychological and emotional counseling, and the public is prone to psychological and emotional problems such as fear, anxiety, tension and depression <sup>[3]</sup>. Due to the decline of body resistance, the elderly are vulnerable to most viruses, and the detection rate of anxiety during the epidemic is significantly higher. We should pay more attention to the mental health of the elderly and prevent the generation of anxiety and other adverse emotions <sup>[4]</sup>. Therefore, in this context, some scholars pointed out that in addition to focusing on epidemiological investigation and nosocomial infection protection, we should pay more attention to psychological intervention for the elderly <sup>[5]</sup>. This paper summarizes the relevant research progress of psychological stress of the elderly under the background of major epidemic at home and abroad in recent five years, in order to provide reference for psychological intervention under major epidemic in the future and provide scientific basis for improving the mental health level of the elderly under the epidemic.

## **2. Research situation on psychological changes of the elderly under major epidemic situations**

### **2.1. Cognitive psychology of the elderly**

#### **2.1.1. At home**

In the early stage of the epidemic, some elderly people in China did not think much of the epidemic and were not aware of its risks at all. They were reluctant to wear masks and have a new year's dinner. Depression and loneliness is a big mental health problem for the elderly nowadays. At this time, the elderly felt helpless, and children began to restrict the activities of the elderly, which would hurt their self-esteem. It is consistent with the research of Yining Chen and Zhizhong Wei <sup>[6]</sup>. During the epidemic, the scope of activities of the elderly was also limited and were discouraged from going out. Zhizhong Wei's research found that some old people think that they are in their twilight years and are not very afraid. They think that death is not terrible for them. The old people will have a fluke mind. They look at the young people nervous and may even feel flattered. After the government adopted the means of community isolation and traffic control as well as the media positively reports the epidemic, the elderly gradually felt the anxiety and the severity of the "COVID-19" epidemic <sup>[7]</sup>.

Miaomiao Wang et al. found that in case of emergencies such as epidemic situation, the psychological pressure and burden of the elderly increase and the psychological elasticity decreases, which not only aggravates the anxiety of the elderly, but also affects the ability of the elderly to deal with emergencies <sup>[8]</sup>. Shan Hu et al. found that with the spread of the COVID-19, the infection rate is rising everywhere. The elderly have poor immunity and many basic diseases. They are vulnerable people. Their psychology is extremely fragile. After the implementation of closed management in the community, the elderly stay at home for a long time, which is inconvenient, prone to wishful thinking, worry, insomnia, sadness and anger, as well as cause panic and leave a shadow <sup>[9]</sup>. Mengyu Wang et al. found that 18.5% of the middle-aged and elderly people had moderate and severe depression, 10.7% had moderate and severe anxiety and 10.8% had moderate and severe insomnia. The analysis shows that the middle-aged and elderly people are more likely to suffer from mental and psychological diseases under the influence of the epidemic <sup>[10]</sup>. Jing Qin found that the elderly are isolated at home and are prone to loneliness, tension, panic and other emotions. It is very important to pay more attention to accompany the elderly at home, create a good home atmosphere and dredge their bad emotions in time <sup>[11]</sup>. Feng Cao found that the elderly are physically and psychologically fragile, and the elderly account for the majority of deaths after infection with COVID-19 <sup>[12]</sup>. Chengcheng Pu found that elderly people are prone to anxiety during the epidemic of COVID-19. In the face of the epidemic, the elderly may have psychological and behavioral reactions: tension, panic, worry and helplessness; excessive worry or indifference to the epidemic situation; anxiety and depression <sup>[13]</sup>. Binying Huang found that during the epidemic, the elderly are prone to anxiety and their psychology is fragile. Various forms of communication and psychological counseling are adopted to meet the psychological needs of the elderly. During the COVID-19 pandemic, the top three sources of bad mood among the elderly were not being able to travel normally, not being able to buy protective equipment and being worried about being infected. During the epidemic of COVID-19, the epidemic is developing rapidly. The news media rolling is also the reason that affects the mood changes of the elderly <sup>[14]</sup>.

#### **2.1.2. Abroad**

The research of Souvik Dubey et al. <sup>[15]</sup> found that the disease itself combined with forced isolation and comprehensive blockade to resist COVID-19 may lead to acute panic, anxiety, obsessive-compulsive behavior, paranoia and depression, as well as post-traumatic stress disorder (PTSD). There was no change in health status when self-assessment was conducted in the survey. Herrera MS et al. found that worsening health symptoms were memory, stomach and emotional problems; Depressive symptoms and anxiety increased <sup>[16]</sup>. Roy J and others found that during isolation, social isolation and loneliness worsened,

resulting in an increase in incidence rate and mortality in the elderly <sup>[17]</sup>. The incidence of anxiety symptoms and anger also showed different trends. Jeong H's study found that <sup>[18]</sup>, four to six months after release from isolation, the incidence of anxiety symptoms was observed to be 3.0% (95% CI, 2.2 to 3.9%). The incidence of anger was 6.4% (95% CI, 5.2 to 7.6%). González-Sanguino C et al. reported the psychological impact of the COVID-19 outbreak in a Spanish population sample. The presence of depression, anxiety disorder and post-traumatic stress disorder (PTSD) was assessed by screening tests. In addition, they also assessed the effects of factors such as mental health, loneliness, social support, discrimination and sense of belonging <sup>[19]</sup>.

The global COVID-19 pandemic has caused rapid and great changes all over the world. Jeong H's research shows that isolation is the main strategy to control the rapid spread of disease, but its impact on psychology cannot be ignored. Risk factors for anxiety symptoms and anger four to six months after release of isolation include MERS-related symptoms during isolation, inadequate supplies (food, clothing, accommodation), social activities (email, text, internet), a history of mental illness, and financial loss <sup>[18]</sup>. González-Sanguino C et al., in their Study in Spain, believed that adequate information about the pandemic was negatively associated with depression, anxiety and PTSD due to older age, economic stability and the belief that sufficient information about the pandemic was provided. However, in all three variables, women, who were previously diagnosed with mental health problems or neurological diseases, had virus related symptoms or symptoms of close relative infection, and were associated with greater symptoms <sup>[19]</sup>. Goveas JS research shows that we have seen many deaths in a very short time. Due to the requirements of physical distance, it affects the nursing methods of dying patients, how to deal with corpses and bereavement rituals. The loss of relatives and life pressure further perplex people, and may also see an increase in long-term sadness <sup>[20]</sup>.

### **3. Psychological influencing factors of the elderly under major epidemic situations**

A large number of studies show that <sup>[21-23]</sup>: under the background of major epidemic, the mental health status of the elderly is affected by many aspects, such as gender, age, pension mode, living environment, education level, family relations, chronic diseases, etc., among which marriage, chronic diseases, income and living environment have a more prominent impact on their mental health.

#### **3.1. Impact of marital status on the psychology of the elderly**

A large number of studies have shown that <sup>[24]</sup>, there are significant differences in the degree of depression among the elderly with different marital status. The degree of depression of the elderly without spouse is significantly lower than the overall level of the elderly, and the degree of depression of the elderly with spouse is significantly higher than that of the elderly without spouse. This is consistent with the research of Ya Liu et al. <sup>[25]</sup>. Marital status is an important factor affecting the mental health of the elderly. Couples who can reach the stage of the elderly support and help each other in the long-life years ahead, and have an irreplaceable position in life, work and spirit. Divorce and widowhood have the greatest impact on people in major events of life, which will cause major physical and mental trauma to the elderly and lead to the overall decline of mental health. Harmonious marital relations are crucial for the elderly <sup>[26]</sup>. In the context of major epidemics, the uncertainty of social conditions and long-term home isolation make the elderly more in need of partners and companionship.

#### **3.2. Impact of chronic disease on the psychology of the elderly**

Studies by Wenjun Qin and others show that <sup>[27]</sup> the proportion of chronic disease deaths among Chinese residents in the total number of deaths is as high as 86.6%, and the resulting disease burden accounts for more than 70% of the total disease burden. Chronic diseases have become a major public health problem

affecting China's economic and social development [7]. The research of Yue Li and others shows that the rapid increase of chronic diseases in the elderly not only leads to the decline of the quality of life of the elderly population and increases the family economic burden, but also affects the mental health of the elderly. The survey results of Chunping Liu et al. shows that "Whether accompanied by chronic basic diseases" is an important influencing factor of depression and anxiety in middle-aged and elderly residents. The reason may be that chronic disease itself is one of the important factors leading to anxiety and depression among the elderly in the community [25]. The more important reason is that COVID-19 is characterized by "poor prognosis of the elderly and those with chronic underlying diseases," which to some extent aggravates the depression, tension, anxiety and panic of middle-aged and elderly residents with chronic diseases. This suggests that while preventing and controlling the epidemic situation, we should strengthen the chronic disease management and psychological counseling of middle-aged and elderly residents.

#### **4. Study on psychological intervention of the elderly under major epidemic situations**

##### **4.1. Research on remote psychological crisis intervention**

Remote psychological intervention refers to the non-face-to-face psychological intervention conducted by telephone, video, instant text and e-mail under the guidance of professional psychological counselors, including network (video conversation and instant text), telephone psychological counseling and psychological knowledge popularization. In the context of major epidemic situations, remote psychological services have more advantages than traditional psychological services. Remote psychological intervention has the convenience of time and space. It is the most convenient and feasible way of psychological assistance during a major epidemic. Feifei Nan et al. have shown that because of the strong infectivity of COVID-19, wearing psychological protective clothing and wearing goggles to face psychological counseling can increase the fear of susceptible people, and the remote service mode of psychological crisis intervention has more advantages. In addition, remote psychological intervention has the advantages of cross region, economic convenience, concealment and anonymity. It is especially suitable for alleviating and solving psychological problems when it is inconvenient to go out in the epidemic situation.

##### **4.2. Research on psychological health education**

The Guidelines for Emergency Psychological Crisis Intervention in COVID-19 Outbreaks also require all localities to provide mental health education for different groups of people, providing mental health education for the public. During the epidemic, governments at all levels and professional institutions released a lot of mental health education materials, which can also play a certain role in intervening the public psychology. Since the outbreak of the epidemic, traditional newspapers, radio and television media, We-Media, Convergence Media and social platforms (Wechat official account, Weibo, Tik Tok, Himalaya, etc.) have all been developing rapidly. They should play an active role in public mental health education activities. At the same time, it is necessary to ensure that the information can be disclosed accurately and transparently, release relevant information through multiple channels, strengthen the supervision and management of public opinion, refute false information in time, and enhance people's trust in the government.

#### **5. Outlook**

Based on the above, although some achievements have been made in the research on the psychological changes of the elderly under major epidemic situations at home and abroad, there are still the following deficiencies:

First, in the selection of research objects. Most researchers tend to study the commonness of the elderly

group and pay attention to the commonness of the group, but the individual differences of the elderly group cannot be ignored. The different psychological needs of the elderly in different regions and different cultural levels need to be paid attention to.

Second, in terms of research methods and theory. Under the background of major epidemic situation, there are a large number of quantitative research results related to mental health of the elderly, but the number of qualitative research is small, and the application theory is relatively single. It mainly explores the impact of one or more psychological variables on the psychology of the elderly under the epidemic situation, and the research theories can be diverse, such as structural perspective, existential psychology, etc. Therefore, from a theoretical perspective, the research on the psychology of the elderly under the domestic epidemic should broaden their horizons and explore the mental health of the elderly from a more diversified perspective.

Third, in the research content. In domestic and foreign studies, there are many studies on negative psychological intervention for the elderly, which is only general studies, and few studies are based on the background of major public health emergencies. This has little reference and significance for the occurrence of public emergencies in the future, and more targeted studies are needed.

The above deficiencies and vacancies need more research and practice to fill. Although some of them have been paid attention to and improved, the deficiencies of research at home and abroad still need to be paid attention to.

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